BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

In the Matter of	)	
	)	
Service Rules for the 698-746, 747-762 and 777-792 MHz Bands	)	WT Docket No. 06-150
	)	
Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems	)	CC Docket No. 94-102
	)	WT Docket No. 01-309
Section 68.4(a) of the Commission's Rules Governing Hearing Aid-Compatible Telephones	)	WT Docket No. 03-264
	)	
Biennial Regulatory Review – Amendment of Parts 1, 22, 24, 27, and 90 to Streamline and Harmonize Various Rules Affecting Wireless Radio Services	)	WT Docket No. 06-169
	)	
Former Nextel Communications, Inc. Upper 700 MHz Guard Band Licenses and Revisions to Part 27 of the Commission's Rules	)	PS Docket No. 06-229
	)	
Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band	)	WT Docket No. 96-86
	)	
Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Communications Requirements Through the Year 2010	)	

REPORT AND ORDER AND FURTHER NOTICE OF PROPOSED RULEMAKING

Adopted: April 25, 2007 **Released: April 27, 2007**

REPLY COMMENTS OF THE METROPOLITAN EMERGENCY SERVICES BOARD

I. SUMMARY

The Metropolitan Emergency Services Board (MESB) previously joined with comments filed by the Region 22 (Minnesota) 700 MHz Regional Planning Committee, which in part asserted that: "Wideband technologies can provide a very large geographic coverage footprint, with cell edge performance characteristics comparable to broadband, for a fraction of the infrastructure development costs of broadband[1]." The assertion is based on the fact that wideband infrastructure provides coverage superior to broadband and therefore is less costly on a square mile covered basis since fewer sites are required. Alcatel-Lucent asserts that such conclusions are flawed[2]. The MESB sets forth facts which support the conclusion that wideband technologies provide superior coverage on a per site basis and require a much lower initial investment to deploy in a region compared to broadband.

II. DISCUSSION

In 2004 the MESB contracted with Macro Corporation to assist in the design, procurement and acquisition of a high speed 700 MHz wireless data system to serve the Twin Cities Metropolitan Area. The RFP was issued in November of 2004 and vendor proposals were received in March of 2005. A number of technologies were offered including "high site" wideband and both "high site" and "low site" broadband systems on various frequency bands.

The system which was subsequently purchased and deployed in the region is a TIA-902 700 MHz wideband system from Motorola. One proposal for a "high site" 700 MHz broadband system was received from IBM. This system utilized OFDM technology from Flarion, which at the time was being evaluated in field trials by Nextel in North Carolina and the District of Columbia municipal government in Washington.

The proposal evaluation prepared with the assistance of Macro Corporation included coverage and costs comparisons. The comparison of Motorola's 700 MHz "high site" wideband vs. IBM's 700 MHz "high site" broadband system validates the assertion that wideband technologies can provide a very large geographic coverage footprint, with cell edge performance characteristics comparable to broadband, for a fraction of the infrastructure development costs of broadband.

Comparison of coverage and initial network costs for "high site" 700 MHz wideband vs. broadband systems in Hennepin County, Minnesota[3].

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[1] MN-RPC comments at 5 in the Report and Order and Further Notice of Proposed Rulemaking, FCC 07-72.

[2] Alcatel-Lucent comments at 2 in the Report and Order and Further Notice of Proposed Rulemaking, FCC 07-72.

[3] Analysis of wireless data proposals received by the MESB in 2005.

Hennepin County, Minnesota 611 Square Miles	IBM Broadband	Motorola Wideband
Number of Antenna Sites Required	18	3
Percentage of County Covered	90.6	95.9
Square Miles Covered Per Site	31	195
Infrastructure Cost Per Square Mile*	$15,496	$5,773

* RF & Switch Costs Only - Backhaul Costs are Excluded

III. CONCLUSION

The MESB believes that the assertion made by Alcatel-Lucent that broadband coverage is equal to or greater than TIA-902 SAM technology is contrary to generally accepted RF engineering principles and is not credible based on actual system proposals received and evaluated by the MESB in 2005.

While much has been made of the potential future virtues of broadband technology, it remains to be demonstrated that wireless broadband, which requires a very dense infrastructure to achieve acceptable geographic coverage, is economically feasible in non-urban areas. In fact, the build out requirements proposed by Frontline would insure that it would be over a decade from now until only 75% of the continental US landmass is covered by their proposed broadband system. Public safety agencies typically require between 95% to 97% area coverage throughout their service areas. Obviously a solution other than broadband is needed for the next 10 years and to fill in the remaining 25% even beyond that - and that solution is wideband.

Wideband technologies can provide a very large geographic coverage footprint, with cell edge performance characteristics comparable to broadband, for a fraction of the infrastructure development costs of broadband. Unlike broadband, the spectrum, technology standards and funding is currently available to immediately deploy wideband systems. Such wideband systems could provide important services for public safety until such time that broadband is available in a given area. Prohibiting wideband translates to prohibiting high speed wireless data of any kind for much of rural America for the next 10-12 years or longer.

If the Commission implements the tentative conclusion stated in the Further Notice to prohibit wideband, rural public safety agencies will be particularly disadvantaged and harmed as a direct result. Many rural agencies are actively pursuing 700 MHz wideband data systems because it is the only technology feasible in those areas for the foreseeable future. As the Commission well knows, implementing a public safety system typically takes several years to accomplish. Numerous wideband systems are currently at various

stages of design, procurement, implementation and operation. Millions of dollars have been invested and committed for these wideband systems. Both urban and rural agencies will be harmed because their investments will be wiped away by Commission rulemaking preventing them from operating these systems. The rural agencies will be further harmed because the proposed nationwide system will not reach their area for at least 10-12 years, if ever. This will relegate them to either no wireless data capabilities whatsoever, or operating low speed narrowband data systems supporting only text and limited graphics (Tier 1) data applications.

Respectfully Submitted,

Metropolitan Emergency Services Board
St. Paul, Minnesota

/s/
Martin Moody
Executive Director